

### REMARKS

This responds to the Final Office Action dated on March 5, 2007 (hereinafter “the Office Action”) and the Advisory Action dated May 21, 2007. Claims 1-34 are pending in this application.

#### §103 Rejection of the Claims

Claims 1-4, 7, 9-15, 18-19, 21-24 and 27-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beard et al. (US 5,640,524, hereinafter “Beard”), in view of Applicant’s admitted prior art (hereinafter “Kohn”), further in view of Cray Assembly Language Systems Reference Manual (hereinafter “Cray”). Applicant respectfully traverses the rejection.

The Office Action noted Applicant’s declaration under 37 C.F.R. § 1.131 concerning the inapplicability of using the Cray reference in the rejection, but deemed the declaration insufficient. The Office Action additionally requires evidence of actual reduction to practice of the invention prior to the date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to a subsequent actual reduction to practice, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to the filing date of the application (constructive reduction to practice).<sup>1</sup>

Enclosed with this response is a second declaration by the Applicant under 37 C.F.R. § 1.131. The declaration includes an e-mail by the Applicant dated December 9, 2002 that includes code used to implement the invention of the Application. Because the code implements the invention, the e-mail is evidence of actual reduction to practice of the invention by the Applicant prior to the date of the Cray reference. Applicant respectfully submits that the declaration is sufficient to remove the rejection under § 103(a) because it establishes that the invention took place before the publication of the Cray reference.

Additionally, the Office Action fails to establish a *prima facie* case of obviousness because the references by themselves or in combination, do not teach or suggest all of the

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<sup>1</sup> Office Action, pgs. 28-29.

elements recited or incorporated into the claims. Applicant cannot find in the proposed combination of Beard, Kohn, and Cray a teaching or suggestion of, among other things,

storing a first sequence of values to a sequence of addressed locations within a constrained area of memory, wherein each location's address is based at least in part on a corresponding one of the addressing values, comparing the first sequence of values to the second sequence of values to generate a bit vector representing compares and miscompares, and performing an arithmetic-logical operation using values from the third vector register and the compressed second vector of operand values to generate a result vector,

as recited in claims 1, 10, and similarly recited in claims 11, 21, and 30, or a system including,

a circuit that selectively adds certain elements of the second vector of operand values based on elements having the duplicated address values, and a circuit that selectively adds values from the third vector register and the second vector of operand values to generate a result vector,

as recited in claim 31.

Instead, the old algorithm, referred to in the Office Action as Kohn, refers to storing and reading back a pattern using the same memory location, and if there were collisions the vector would be unwrapped and executed as individual instructions.<sup>2</sup> Thus, the old algorithm does not teach or suggest performing an arithmetic-logical operation using values from the third vector register and the compressed second vector of operand values to generate a result vector. The cited portion of the Cray reference refers to a compress function, but does not teach or suggest comparing the first sequence of values to the second sequence of values to generate a bit vector representing compares and miscompares, and performing an arithmetic-logical operation using values from the third vector register and the compressed second vector of operand values to generate a result vector. Thus, the proposed combination of Beard, Kohn, and Cray does not teach or suggest all of the elements recited or incorporated into the claims.

Applicant respectfully requests withdrawal of the rejection and allowance of claims 1-4, 7, 9-15, 18-19, 21-24 and 27-34.

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<sup>2</sup> Present Application, pg. 4 line 27 to pg. 5 line 9.

*Allowable Subject Matter*

Claim 8 has been allowed. Applicant acknowledges the allowed subject matter.

Claims 5-6, 16-17, 20, and 25-26 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-6 ultimately depend on base claim 1, claims 16-17 and 20 ultimately depend on base claim 11, and claims 25-26 ultimately depend on base claim 21. Applicant acknowledges the allowable subject matter but believes the base claims are allowable in their present form at least for the reasons set forth above.

**Reservation of Rights**

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 371-2172 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By his Representatives,

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Date July 12, 2007

By Paul J. Urbanski  
Paul J. Urbanski  
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12 day of July, 2007.

CANDIS BUENDING

Name

Signature